

IDOT has the responsibility to comply with requirements outlined in the Federal Highway Administration (FHWA) rules and regulations. These requirements stipulate that all federally funded highway projects be designed to minimize adverse economic, social, and environmental impacts. The Civil Rights Act of 1964 emphasizes the need to assure that minority groups are not discriminated against in Federal-Aid projects.

Community characteristics, including population, average household income, as well as environmentally sensitive locations are described in the following sections of this section. Information about existing conditions will aid in the determination of potential impacts to the social, economic, and environmental setting of the study area associated with each corridor.

3.1 DEMOGRAPHICS

The tables referenced in this section are located in Appendix B: Demographics.

3.1.1 Population

Population growth in Fulton, McDonough, and Peoria Counties lagged both the state and national averages from 1990 to 2000. The population of Fulton and Peoria County grew at an average annual rate of 0.04% and 0.03%, respectively, and McDonough's population retracted at an average annual rate of 0.68%. This is compared to the state average annual growth of 0.83% and national growth of 1.24% over the same period. (See Table B-1.)

Within the study area, there are 12 cities and villages with populations greater than 600. Nine of the 12 communities experienced loss of population from 1990 to 2000, with average annual declines between 0.02% and 1.8%.

The three communities with population gains from 1990 to 2000 were Bartonville, Bellevue, and Canton. Bartonville and Bellevue, both suburbs southwest of Peoria, realized gains of 514 (0.88% annually) and 365 (2.21% annually), respectively. Canton, the principal city of Fulton County, grew by 1,334 people or an annual average gain of 0.92%.

Overall population distribution in the study area is shown in Exhibit 3-1.

3.1.2 Household Characteristics

In all three of the study area counties, the number of households grew at a faster pace during the 1990s in terms of annual percentage growth than their respective populations did. The slow growth of population in Peoria County and the decline in McDonough County was contrasted by average annual gains in the number of households of 0.27% and 0.15%, respectively. Over this same timeframe, Fulton County households experienced a slight annual average shrinkage of 0.06%. The nation and the State of Illinois again lead the study with average annually increases in number of households by 1.38% and 0.9% respectively. (See Table B-2.)

In 2000, the average household size in the study area (2.55) was slightly less than the national average of 2.67. The average number of residents per household for the study area declined by 2.5% from 1990 to 2000 from 2.61 to 2.55 people per household. The State of Illinois average decreased by less than 0.75% to 2.70 while the United States average decreased 1.1% to 2.67 people per household during the same time period. (See Table B-3.)

3.1.3 Age

Unlike the State of Illinois and the nation, the study counties did not enjoy a growth from 1990 to 2000 of their younger population. As a whole, the three counties lost on average 0.48% of its population under the age of 18 each year from 1990 to 2000. Over the same time period, the State of Illinois population under age 18 grew by over 1% annually on average.

The study counties are aging. The 45- to 64-year old population was the only age cohort to grow in the three counties during the 1990s. The average annual growth rate of 1.55% was healthy but still lagged the state and national averages of 2.13% and 2.86%. (See Table B-4.)

Exhibit 3-2 shows the distribution of the over-65 population. As shown, areas exist where a significant percentage of the population is elderly.

3.1.4 Education

The largest educational attainment cohort in Fulton County to grow during the 1990s was the category of individuals with some college education but no degree. This cohort accounted for 16.2% of the general population in 1990 but grew to 22.27% of the population by 2000.

Two sectors of the McDonough County population grew during the 1990s: those with some college education but no degree and those with a graduate or professional degree. The some college cohort grew by 64 people (1.61%) annually; the graduate or professional degree cohort grew by 54 (2.27%) annually.

Population growth in Peoria County from 1990 to 2000 was limited to those in educational cohorts encompassing some college education through graduate/professional degrees. The cohorts of a high school degree or less attributed an average annual reduction in the population of 1.35% during the 1990s. (See Table B-5.)

3.1.5 Income and Poverty Characteristics

Average 2000 per capita personal incomes for the study area counties are as follows:

- Fulton--\$21,405
- McDonough--\$21,831
- Peoria--\$28,534

The average 2000 per capita income for the State of Illinois was \$31,856, and, nationally, \$29,469. Note that Fulton and McDonough Counties' 2000 per capita income is approximately 67% and 68% of the state average, respectively. (See Table B-6).

In 1989, 15% of the population in Fulton, McDonough, and Peoria counties earned income below the poverty level, compared to 12% statewide and 13% nationwide. By 1999, 14% of the three-county population earned income below the poverty level, compared to state and national percentages of 11 and 12, respectively. While the area as a whole moved a little more out of poverty, McDonough County's poverty population grew from 15% of the population in 1989 to 20% of the population in 1999. (See Table B-7).

Per capita income by census tract is shown in Exhibit 3-3.

3.1.6 Employment

In 2001, the latest year for which full statistics are available, the annual average unemployment rate for the State of Illinois was 5.4%. McDonough and Peoria Counties both had lower unemployment at 3.1% and 5.1%, respectively. Fulton County, however, had unemployment of 8.2%. (See Table B-8.)

In 2001, one out of every four residents of Fulton, McDonough, and Peoria Counties were employed in Education and Health Services, compared to the state average of approximately one in six. In 2001, the major three sources of employment in Fulton County were Education and Health Services (36.7%); Trade, Transportation, and Utilities (26.6%); and Leisure and Hospitality (10.3%). The same is true in McDonough County with respective ratios of 18.9%, 16.2%, and 28.9%. Peoria County's three largest employment sectors in 2001 were Education and Health Services (24.8%); Trade, Transportation, and Utilities (18.2%); and Professional and Business Services (14.3%). (See Tables B-9 and B-10.)

The largest employer in the three county area is Caterpillar, with more than 15,000 employees in the area, and their headquarters in Peoria. However, none of this employment is in Fulton or McDonough Counties. Only one other manufacturing employer with more than 1,000 employees is in the Peoria area, Keystone Steel and Wire, in Peoria. The following non-manufacturing entities employ between 1,000 and 5,000 in the Peoria area: Affina, Bradley University, Illinois Central College, Methodist Medical Center, OSF St. Francis Medical Center, Par-a-Dice Casino, and Proctor Community Hospital. All are located in Peoria, except Illinois Central College, which is in East Peoria. (See Table B-11.)

3.1.7 Race and Ethnicity

Peoria County is the most racially diverse of the three counties, with a 2003 minority population of about 18%. Minorities make up about 6% and 5% of the 2003 populations of Fulton and McDonough Counties, respectively. (See Table B-12.) As shown in Table B-12, the majority of the minority population is black, or African American. Distribution of minority populations by census block is shown in Exhibit 3-4. Although minorities comprise a relatively small percentage of the overall population in the study area, Exhibit 3-4 shows that there are scattered small areas where minorities comprise a significant percentage of the population.

The three counties have small Hispanic or Latino populations, with 2.2%, 1.5% and 1.6% of the populations of Peoria, Fulton, and McDonough Counties, respectively. (See Table B-12.) The distribution of Hispanic or Latino populations is shown in Exhibit 3-5. As with minorities, although Hispanics and Latinos make up a small percentage of the overall population, there are small areas where they comprise a significant percentage of the population.

3.1.8 Housing

As shown in Table B-13, the majority of housing in the three counties is owner-occupied, with Fulton County having the highest percent of owner-occupied housing (76%) and McDonough County the least (63%). The estimated 2003 median value of owner-occupied homes is \$96,958, \$67,232, and \$69,232, for Peoria, Fulton, and McDonough Counties, respectively. Fulton County has the highest percentage of older homes, with an estimated 40% greater than 64 years old, compared to 21% in Peoria County and 30% in McDonough County. (Table B-13.)

The distribution of housing values in the study area is shown in Exhibit 3-6.

3.2 TRANSPORTATION FACILITIES

The study area is mostly rural, and the major transportation facilities in the area are highways. The only part of the Interstate Highway System within the project area is I-474, which is the eastern terminus of the project. There are three US highways in the study area: US 67, which, including the Macomb bypass, is the western terminus of the project; US 24 at the south, which is included in approximately the eastern half of Corridor C; and US 136, in the southwest part of the study area. IL 116 is the major east-west route in the northeast part of the study area (Corridor A and a small part of Corridor B). IL 9 is a major east-west route in the study area. It passes through Canton and is included in all three corridors, primarily in the western half of Corridor A. IL 95 also runs east-west and is included in an approximately 20-mile long section near the western end of Corridor B. IL 78 runs north-south through all three corridors, and passes through Farmington and Canton. IL 97, to the west of IL 78, also runs north-south through all three corridors, and passes through Cuba and Lewistown. IL 41 runs north-south near the west end of the study area, through Corridors A and B, and passes through Bushnell. IL 100, near the south-central part of the study area, runs from US 24 to IL 78 and passes through

Lewistown. The county road between Cuba and Canton, referred to locally as the "Cuba to Canton Blacktop," is a relatively heavily used road.

There are a few small, municipal and private airports and one regional airport within the study area. The Canton-Ingersoll Airport, located just west of Canton, is a public, municipal airport mostly serving chartered flights. The Macomb Municipal Airport is located approximately 3 miles north of Macomb, just south of Good Hope. This public airport services private charter airplanes only. Also, privately owned Smith Airport is located just south of Macomb along Highway 67.

The only regional airport in the study area is the Greater Peoria Regional Airport (GPRA), which is located just west of I-474 in Peoria, near the eastern end of the study area (south of IL-116). The GPRA currently has two runways with an annual capacity of 1,000,000 passengers, and is served by several commercial passenger and cargo carriers. The airport authority has proposed long-range master plans with the goal of making the airport a regional transportation hub for freight service. This would include extending one runway (no. 31/13) and the construction of an additional runway to the northeast and parallel to existing runway 31/13 (Hanson Engineers Incorporated, 1999). However, this would require the closure and relocation of a portion of IL-116. Also proposed are improvements and additions to the existing roadway network in order to facilitate this type of inter-modal transportation development. Improvements include the development of a direct connection from Interstate 474 to IL-116 and provide for a connection from IL-116 to access the freight facility from the north and west.

Several large and small truck firms operate from locations in and around the greater Peoria area providing LTL,² full-load, inter-modal, and flatbed carrier services. Both independent and commercial carrier fleets are located along the Illinois River; however, most are found in industrial park developments in Peoria and Bartonville. Three of the largest trucking facilities providing local, inter- and intra-state trucking services are located within 2 miles of I-474 in Peoria. Also, some independent and commercial trucking companies are located within the study area in smaller townships, such as Canton, Farmington, Good Hope, Lewiston, and Macomb.

Several railroad companies provide freight movement within the study corridor including Class I and regional carriers such as Burlington Northern Santa Fe Railway (BNSF), Toledo Peoria & Western Railway Corporation (TPW), and Union Pacific Railroad. The only railroad passenger service in or near the study area is at Macomb, which is serviced by the Amtrak route that extends from Quincy to Chicago.

A few public transit (bus) operations exist in the study area. The Greater Peoria Mass Transit District (GPMTD), also known as City Link, provides fixed route, general public transportation to the City of Peoria with routes to Peoria Heights, West Peoria Township, West Peoria City,

² Less-Than-Load

North Pekin, Creve Coeur, and East Peoria. City Link's service extends as far west as the Greater Peoria Regional Airport and the eastern edge of Bartonville, both of which are within the study area. Also providing transportation services in the Peoria/East Peoria area is MV Transportation, also known as City Lift. This service is not, however, a fixed-route general public transportation provider. Rather, City Lift provides on-call, reserved transportation to the disabled and elderly, with transportation available as far west as the Greater Peoria Regional Airport. In Macomb, Go West Transit provides free, fixed-route transportation primarily for students of Western Illinois University. However, service is also available to all Macomb citizens with routes to the core areas of Western Illinois University and many local merchants.

3.3 TOPOGRAPHY AND GEOLOGY

Relatively rough relief along the major stream valleys, and gentle topography elsewhere characterizes the study area. Exhibit 3-7 provides a sense for the overall topography in the study area. The hilly areas are mostly wooded and the flatter areas are cultivated fields. There is a steep bluff and wide floodplain along the Illinois River, at the southeast part of the study area.

There are extensive areas of former strip mines in the study area, as shown in Exhibit 3-8. These are apparent from the topography by the high density of elongated lakes that often trend in similar directions. The area where most of the strip mining occurred is bounded as follows: on the north by the study area boundary; on the west by the Spoon River; on the south by the following highways, going from west to east--IL 95, IL 97, IL 100, US 24, to IL 9; and on the east by the following highways, going from south to north--IL 9 and IL 78. The area within the polygon formed by IL 9, 97, 100 and 78, near Canton, Fiatt, Cuba and St. David, is almost entirely former strip mines

Other than the strip mined areas, most of the study area is underlain by glacial deposits of the Glasford formation. The glacial material is unsorted clay, silt, and sand, referred to as till. A silty glacial lake deposit underlies the area in the northwest corner of the study area, roughly west of Bushnell and north of Bardolph. Several feet of a windblown silt deposit referred to as loess overlie the glacial deposits. Alluvial deposits of sand, silt, and clay underlie the floodplains of streams such as the Illinois River and Spoon River and a few smaller streams (Lineback, 1979).

The bedrock underlying the area is present at variable depths greater than 20 feet, and consists of Pennsylvanian Age sandstone, shale, limestone, and coal. A 1975 map of Illinois coal reserves shows a large area of the site as underlain by a reserve of the Herrin (No. 6) Coal, greater than 42 inches thick (Smith and Bengal, 1975). This roughly rectangular area extends from the north and eastern study area boundaries west to approximately Fairview and south to approximately Norris. The map indicates that as of 1973, only a very small part of this coal had been mined out.

3.4 LAND USE

As part of the corridor location study, existing and planned future land use was identified. Land use and zoning maps from municipal, county, and regional agencies as well as aerial photographs, electronic databases, and county plat books provided data on existing land uses. The comprehensive plans of municipal, county, and regional agencies provided information on planned future land use.

3.4.1 Existing Land Use

Existing land use for the study area is shown in Exhibit 3-7. As shown in the Exhibit, cities and towns (urban and built up land) cover only a small part of the study area, which is primarily rural. The light green that covers much of the study area represents agricultural land, which is mostly prime farmland. The light brown indicates the wooded areas along rivers and streams, which is usually topographically rugged compared to the agricultural land, which is relative flat. Former surface mines are shown in Exhibit 3-8. That land now mostly consists of grassy areas with many lakes that provide habitat for waterfowl and is valued for hunting. Public lands, consisting primarily of wildlife refuges, parks, and conservation areas are shown in Exhibit 3-9. The largest areas of public land are along the Illinois River, with other fairly large areas near Canton and some smaller areas elsewhere in the study area.

3.4.2 Future Land Use

Comprehensive plans for each of the three major municipalities were reviewed to determine if a new highway would be compatible with the future vision of each municipality. McDonough County developed an *Overall Economic Development Program* in 1980-81, which was revised in 1984. Macomb produced the *Macomb, Illinois Comprehensive Plan* in 1989. *The Impact of Poor Highways on Economic Development in Fulton County* was prepared in 1992 by the Economic Development Corporation of Fulton County. All three plans pointed to transportation as an important factor in economic development, and set transportation-related goals and objectives. The first objective of the McDonough County plan is to promote and assist in the development of an improved highway system in McDonough County and all of western Illinois (McDonough County Economic Development Commission, 1981).

Goals established in the Macomb plan include:

- Provide opportunities that will foster economic growth and prosperity in Macomb, furthering the economic well-being of the city's residents.
- Provide an adequate and safe automobile, pedestrian, bicycle, truck, rail and air transportation system that is designed to support the overall physical, social, and economic goals and objectives of the community.

The Fulton County study reached the following conclusions:³

- Fulton County is a viable location for economic activities because of its central location between Chicago and St. Louis;
- Previous studies, two by Arthur Anderson Consulting and one by the Western Illinois Regional Council, noted the inadequate highway system and the need for a coordinated effort to put a highway in Fulton County.

Economic development efforts in Fulton County are thwarted by what potential business developers have called “poor transportation.”

3.5 ENVIRONMENTAL RESOURCES

The tables referenced in this section are in Appendix C: Environmental Resources. The purpose of this section is to describe the environmental setting in the entire study area, and where relevant, the surrounding areas. Analysis of environmental resources for the corridors is presented in Section 4.

3.5.1 Parks, Refuges, and Other Public Lands

State fish and wildlife areas, county and municipal parks, U.S. fish and wildlife refuges and other public lands are located throughout and near the study area, as shown in Exhibit 3-9. Public lands located within, partly within and immediately adjacent to the study area are listed in Table C-1. Note that while Canton Lake is not part of the city park system, it is publicly owned land and does have associated recreational features and is therefore included with the discussion of parks.

3.5.1.1 Public Lands Associated with the Illinois River

In terms of acreage, the greatest amount of public land in the vicinity of the study area is along the Illinois River. The Illinois River is important for its water resources, waterfowl habitat, wetlands, bottomland forest, and habitat for threatened and endangered animals and plants. The Illinois River forms the southeastern boundary of the study area, from approximately river mile 132 on the south to river mile 158 near Peoria, a distance of about 26 river miles. Along this stretch of river are five state fish and wildlife areas and two U.S. wildlife refuges. These are discussed below, under federal lands and state lands. (See Exhibit 3-9).

³ As referenced in the *336 Update, the Official Newsletter of the Route 336 Coalition*, May 1999.

3.5.1.2 Federal Lands

Two national wildlife refuges, Emiquon and Chautauqua, are located along the Illinois River, along the southern boundary of the study area. The U.S. Fish and Wildlife Service (USFWS) administers the refuges. Emiquon is on the west side of the river, and lies partially within the study area; Chautauqua lies on the east side of the river and borders part of the study area. The refuge boundaries shown in Exhibit 3-9 are the planned refuge boundaries; not all the land has been acquired.

These refuges are part of a chain of four refuges along a 125-mile stretch of the Illinois River, designated as the Illinois River National Wildlife and Fish Refuges, with headquarters in Havana. The other two refuges are Meredosia in Cass and Morgan Counties, and the Cameron/Billsbach Unit in Marshall County. The USFWS' objectives for these refuges are:

- To provide resting, nesting, and feeding habitat for waterfowl and other migratory birds.
- To protect endangered and threatened species.
- To provide for biodiversity.
- To provide public opportunities for outdoor recreation and environmental education.⁴

According to the USFWS, the Illinois River National Wildlife and Fish Refuges form vital links in a chain of life-sustaining refuges within the Mississippi Flyway, extending from Canada to the Gulf of Mexico.

Emiquon National Wildlife Refuge

The Emiquon National Wildlife Refuge was established in 1993. The 11,039-acre refuge is being purchased by the USFWS to protect, restore, and manage migratory bird, fish, and resident wildlife habitat in the Illinois River Valley. It will also provide increased public recreation and educational opportunities.

Historically, two backwater lakes named Thompson (1,800 acres) and Flag (1,000 acres) provided habitat for migratory birds, fish, and resident wildlife. The counties of Fulton and Mason were so abundant in fish and wildlife resources that the area was once the tourism capital of Illinois.

When completely restored and managed, Emiquon Refuge will provide:

- 2,800 acres of backwater lake habitat
- 2,900 acres of bottomland forest habitat
- 700 acres of upland forest
- 800 acres of prairie

⁴ <http://midwest.fws.gov/illinoisriver/general.html>

- 1,900 acres of seasonal wetland habitat
- 800 acres of marsh
- 1,000 acres may be retained for agricultural production⁵

Chautauqua National Wildlife Refuge

The 4,388-acre Chautauqua National Wildlife Refuge was established in 1936 from lands acquired from a defunct levee district. The main habitats found on Chautauqua Refuge are two backwater lakes of the Illinois River: the 2,000-acre South Pool and the 1,100-acre North Pool. The South Pool is a shallow water/seasonal wetland managed to provide critical habitat for resident, migratory, and breeding birds. The North Pool is managed to provide a stable water level suitable for fish, resident wildlife, and migratory bird species. Two small demonstration prairies are located on the refuge, with the remaining refuge habitats comprised of upland hardwood forests dominated by oak and hickory.⁶

3.5.1.3 State Lands

The Illinois Department of Natural Resources (IDNR) administers all the state lands in and near the study area. As noted above, there are five state fish and wildlife areas along the Illinois River at the southeast boundary of the study area. Two of these, Banner Marsh and Rice Lake, lie within the study area. The other three, Pekin Lake, Powerton Lake, and Spring Lake, all lie on the east side of the river, just outside the study area boundary.

Banner Marsh Fish and Wildlife Area

This 4,363-acre freshwater marsh was acquired by the state in the 1980s. The site's 200-plus water bodies and surrounding land provide habitat for migrating and local waterfowl, numerous species of gamefish and other wildlife, while providing opportunity for outdoor enthusiasts. The state stocks the lakes and maintains three fish brooding ponds.⁷

Rice Lake Fish and Wildlife Area

This 5,660-acre area includes several lakes. The property was first acquired in 1945 as a refuge for migratory waterfowl and for hunting. (Hunters contributed significantly to the purchase.) It now serves thousands of migratory ducks and geese annually and provides habitat for threatened or endangered plants and animals.⁸

⁵ <http://midwest.fws.gov/illinoisriver/emq.html>

⁶ <http://midwest.fws.gov/illinoisriver/chaq.html>

⁷ <http://www.dnr.state.il.us/lands/landmgt/parks/ilstate.htm>

⁸ <http://www.dnr.state.il.us/lands/landmgt/parks/ilstate.htm>

Double T Fish and Wildlife Area

Double T is a large tract of land in a former strip-mined area northwest of Canton that has recently been acquired by IDNR for use as a fish and wildlife area. It is currently (November 2003) open to the public for goose hunting.

Harper-Rector Woods Nature Preserve

This 37-acre woods is an old growth forest remnant representative of the Galesburg Section of the Western Forest-Prairie Division. Two types of forest communities are present here: dry-mesic and wet-mesic upland forest. The land, now the property of IDNR, was dedicated in 1989 by the Illinois Nature Preserves Commission (INPC) under the Natural Areas Preservation Act.⁹ Land dedicated by the INPC as a nature preserve cannot be condemned for another use.^{10,11}

3.5.1.4 County and Municipal Parks

There are several county and municipal parks and recreation areas in the study area. These are shown in Exhibit 3-9 and listed in Table C-1.

3.5.2 Wooded Areas

The wooded, or forested, lands in the study area were discussed in the existing land use section, and are shown in Exhibit 3-7. They are generally located along streams. Wooded areas are inventoried and impacts associated with each corridor are discussed in Section 4.

3.5.3 Natural Areas

The State of Illinois has an inventory of natural areas identified as having noteworthy natural features. The inventoried Natural Areas within the study area boundaries are listed in Table C-2.

3.5.4 Prime Farmland/Protected Agricultural Lands**3.5.4.1 Prime Farmland**

As shown in Exhibit 3-10, much of the study corridor is agricultural land. Most of the land shown as agricultural has been designated as prime farmland under the federal Farmland

⁹ Public Act (P.A.) 82-445. 525 ILCS 30 (Illinois Compiled Statutes, Chapter 525)

¹⁰ <http://dnr.state.il.us/INPC/Index.htm>

¹¹ "Dedicate" means to set aside land in perpetuity (525 ILCS 30/3.06)

Protection Policy Act (FPPA).¹² The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.

3.5.4.2 Protected Agricultural Land

Under the Illinois Agricultural Areas Conservation and Protection Act of 1980,¹³ landowners may voluntarily place their land into a protected district, often called an "Ag Area," with the approval of the local county boards. The county board refers requests for Ag Area designation to an Ag Area Committee, appointed by the County Appointing Authority. At least 4 of the 5 Ag Area Committee members must be active farmers and one must be a county board member. Public notice and a public hearing are required in the process. The Ag Area Committee makes a recommendation to the county board, which either denies or approves the recommendation. If the recommendation is approved by the county board, the Illinois Department of Agriculture is notified and the description is filed in the County Clerk's office. Once approved, an Ag Area remains protected for 10 years. During that time landowners can request deletions from, additions to, or dissolution of the designated Ag Area. After the 10-year period expires, extensions of eight years can be granted. The county board has final approval of any changes to an Ag Area, following procedures similar to those for Ag Area establishment. Changes of ownership do not affect the Ag Area designation (Church, 2000).

The law requires an annual report on the status of Ag Areas in Illinois. Based on the 2002 annual report, there are two Ag Areas in the study area: one in Peoria County just west of Smithville, and one in Fulton County just east of Fairview (Illinois Department of Agriculture) (See Exhibit 3-10).

Farmland areas are inventoried and impacts associated with each corridor assessed in Section 4.

3.5.5 Water Resources

Water features in the study area are shown in Exhibit 3-11.

3.5.5.1 Drainage Areas

The Illinois River, which borders the southeast part of the study area, drains about 45 percent of the State of Illinois. It has a natural drainage area of about 30,000 square miles, of which about 24,000 square miles are in Illinois.

¹² The Agriculture and Food Act of 1981 (Public Law 97-98) contains the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549, 7 USC 4201. The final rules and regulations were published in the Federal Register on June 17, 1994.

¹³ 505 ILCS 5/20.1

The western part of the study area is in the drainage area of the La Moine River. The northwest part of the study area, approximately north of US 136 and west of IL 41, is within the drainage area of the East Fork of the La Moine River. The southwest part of the study area, west of US 136, drains through creeks to the La Moine River, to the southwest.

The Spoon River drains a large part of the study area, with the western boundary roughly corresponding to US 136 and IL 41. The eastern boundary extends roughly from Lewistown to Dunfermline to Canton to Farmington. The Spoon River flows into the Illinois River at Havana, south of the study area.

The east and southeast part of the study area is within smaller drainages that empty directly to the Illinois River. The area to the north of IL 116 drains mostly to Kickapoo Creek, which flows into the Illinois River near the east end of the study area. The Copperas and Lamarsh Creeks drain the area south of IL 116 and east of Canton, with the Copperas drainage, to the west, the larger of the two. Three small creeks drain the area between Lewistown and the intersection of US 24 and IL 9: Big Sister, Buckheart, and Duck.

3.5.5.2 Lakes and Reservoirs

As shown in Exhibit 3-11, there are numerous lakes associated with former strip mined areas and in the floodplain of the Illinois River. There are several reservoirs, notably Canton Lake, east of Canton, which is the water supply for the City of Canton.

3.5.5.3 Section 303(d) Listed Waters

Section 303(d) of the federal Clean Water Act (CWA)¹⁴ and the Water Quality Planning and Management regulation at 40 CFR 130.7¹⁵ requires all states to:

- (1) identify waters which will not attain applicable water quality standards with technology controls alone (water quality limited waters),
- (2) establish a priority ranking for such waters, taking into account the severity of the pollution and the uses of the waters, and
- (3) target watersheds for development of total maximum daily loads (TMDLs). The inclusion of 303(d) waters in the selection criteria represents the inclusion of waters with documented pollution control problems.

The Illinois EPA intends to eventually develop watershed-based implementation plans to regulate the TMDLs determined for each water quality limited watershed. The latest Section

¹⁴ The Clean Water Act is the common name for the Federal Water Pollution Control Act (33 U.S.C. 1251 - 1376).

¹⁵ Code of Federal Regulations (CFR), Title 40, Section 130.7.

303(d) list of water quality limited waters for the State of Illinois is contained in the State's 2002 Section 303(d) report. Listing is based on an assessment of use, support of that use, and the confidence level in the supporting data. Listed waters are classified as high, medium, or low priority. The use and support classifications are from another State report required by the CWA, the "Section 305(b) report."¹⁶ In the Section 305(b) report, each waterbody is categorized into one or more of the following uses: drinking water, aquatic life, primary contact (swimming), secondary contact (boating), and fish consumption. For each use, as appropriate, each waterbody is classified as follows:

- Full use support--the waterbody attains the designated use.
- Full/Threatened use support--the waterbody currently attains the designated use, but water quality is declining and full use is threatened in the future.
- Partial use support--the waterbody incompletely attains the designated use.
- Non-support--the waterbody does not attain the designated use.

All waterbodies assessed as partial or non-support for any use category are designated as "impaired" by the Illinois EPA, and are included in the Section 303(d) list for which TMDLs will eventually be developed.

There are no Section 303(d) listed high or low priority waterbodies within the study area. Several waterbodies, shown in Exhibit 3-11 and listed in Table C-3, are designated as medium priority in the Section 303(d) list.

3.5.5.4 Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers in or near the study area, nor are any under study for that designation, under the Wild and Scenic Rivers Act of 1968 (National Park Service).

3.6 SENSITIVE ENVIRONMENTAL AREAS

3.6.1 Hazardous Waste Sites

A review of hazardous waste sites in the study area included using the most recent Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) list, updated June 13, 2003. CERCLIS contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities, including sites that are on the National Priorities List (NPL) or being considered for the NPL. These sites are listed in Table C-4 and shown on Exhibit 3-12.

¹⁶Section 305(b) of the federal Clean Water Act requires biannual reporting of stream quality by each state. The latest Illinois report is the Illinois Water Quality Report 2002, also referred to as the Section 305(b) report (IEPA/BOW/02-006, July 2002).

3.6.2 Historic Resources

The National Register of Historic Places is the nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.¹⁷

Properties within the study area that are on the National Register are listed in Table C-5.

Additional sites not yet recorded but which are older than 50 years or have other historic significance may be affected. An inventory of structures older than 50 years will be created in the alignment phase of the project.

3.6.3 Community Facilities and Services

Community facilities and services include hospitals, schools, churches, municipal buildings, libraries, recreational facilities, etc. Changes in access to any of these facilities can affect community members. Communities that would be impacted by the corridors are discussed in Section 4, as are changes to the original corridors that were made to avoid adverse impacts on communities and community facilities. For those facilities within corridors that are potentially impacted, alternates that avoid, minimize, or mitigate access or displacement impacts will be considered in the alternate alignment study phase.

3.6.4 Archaeological Resources

The specific locations of known archaeological sites and those identified during the course of this study will not be revealed in this report due to their sensitive nature. Archaeological resources tend to be found near water features such as rivers and streams. Most of the archaeological sites in the study area are located along the Illinois and Spoon Rivers and tributaries.

Dickson Mounds, a Native American archaeological site that is part of the Illinois State Museum and is a National Historic Site, is located just south of the study area boundary. (See Exhibit 3-9).

¹⁷ <http://www.nationalregisterofhistoricplaces.com/>

3.6.5 Threatened and Endangered Species**3.6.5.1 Federally Listed Species**

The Endangered Species Act (ESA) of 1973 as amended directs USFWS to identify species in need of conservation and directs all federal agencies to participate in endangered species conservation. Specifically, Section 7 of the ESA charges federal agencies to aid in the conservation of listed species (Section 7(a)(1)) and requires Federal agencies to ensure that their activities will not jeopardize the continued existence of listed species or adversely modify designated critical habitats (Section 7 (a)(2)). Section 7(a)(2) of the ESA requires other agencies to consult with the USFWS to ensure that actions they fund, authorize, permit, or otherwise carry out will not jeopardize the continued existence of any listed species or adversely modify designated critical habitats. USFWS has produced guidance for the consultation process, which, if needed, would occur during the alignment stage of the project (U.S. Fish and Wildlife Service and National Marine Fisheries Service, 1998).

One federally-listed threatened animal species, the bald eagle, and one threatened plant species, the decurrent false aster, have been identified in the study area.

The bald eagle has recovered, and on July 06, 1999, the USFWS proposed to delist the bald eagle in the conterminous (lower 48) states.

A recovery plan for the decurrent false aster, which is found only in Missouri and Illinois, was developed in 1990.¹⁸ The plant's natural habitat is along lake shores and the Illinois and Mississippi River. Only 18 Illinois sites were identified in a study done in 1989. Only a few of these sites had 100 or more plants; with more than 4,000 plants estimated, Rice Lake was by far the site with the greatest number in Fulton County. The recovery plan recommended protection for the Rice Lake population.

Locations of known habitat of these species in the study area are shown in Exhibit 3-13 and the information is summarized in Table C-6.

3.6.5.2 State Listed Species

The Illinois Endangered Species Protection Act of 1972 (520 ILCS 10/11) protects species that are endangered in Illinois. Analogous to the federal definitions, an Illinois endangered species is any species that is in danger of extinction as a breeding species in Illinois, and a threatened species is any species that is likely to become endangered. The Illinois Endangered Species Protection Board determines which plant and animal species are threatened or endangered in the state and advises the Illinois Department of Natural Resources on means of conserving those

¹⁸ U.S. Fish and Wildlife Service, 1990. *Recovery Plan: Decurrent False Aster (Boltonia Decurrens)*.

species. The list is revised every five years. The latest list was completed in 1999, and the next list will be completed in 2004.

Consultation with the IDNR is required for all state agencies and local governments which authorize, fund, or perform actions which may result in alteration of existing environmental conditions or which may adversely affect listed species. Consultation procedures for assessing impacts are contained in Title 17 of the Illinois Administrative Code, Part 1075. Consultation, if needed, would occur during the alternatives analysis part of the project.

Five state-endangered birds have either historical or current habitat within the study area. In addition to the federally listed species, one bird, one mammal, one insect, and two plants identified as threatened in the State of Illinois may have habitat in the study area. These species are shown in Exhibit 3-13 and listed in Table C-6.

3.6.6 Wetlands

National Wetland Inventory Maps developed by the USFWS were used to identify potential wetland resources in the study area. (See Exhibit 3-14.) Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. Wetlands are defined in 40 CFR 232.2 as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." A Section 404 permit must be obtained prior to discharging into a wetland, and, in accordance with the CWA the applicant must show that they have:

- taken steps to avoid wetland impacts where practicable;
- minimized potential impacts to wetlands;
- provided compensation for any remaining, unavoidable impacts through activities to restore or create wetlands.

Wetlands in and near the study area are shown in Exhibit 3-14. The largest areas of wetlands are along the Illinois River. There are also many smaller wetlands associated with former strip mines all around the Canton area.

3.6.7 Floodplains

Executive Order 11988¹⁹ establishes procedures with which all federal agencies must comply, "to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplain development wherever there is a practicable alternative." Exhibit 3-15 shows the locations of 100-year and 500-year floodplains within and

¹⁹ May 24, 1977, appears at 42 FR 26971, 3 CFR, 1977 Comp., p. 117

near the study area. The 100-year and 500-year floodplains are those areas that have a 1% and 0.2% probability, respectively, of being inundated in any given year. The largest floodplain area, by far, is along the Illinois River. The lower Spoon River has a relatively wide floodplain.